2.5 CUMULATIVE IMPACTS

2.5.1 Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this Project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the Project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the Project, such as changes in community character, traffic patterns, housing availability, and employment. Exhibit 2.5-1, *Resource Study Areas*, illustrates the resource study areas utilized in this analysis for biology, land use (general plan), and community. Exhibit 2.5-2, *Resource Study Area – Air Quality*, illustrates the resource study area utilized for the air quality analysis.

CEQA Guidelines, Section 15130, describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under CEQA, can be found in Section 15355 of the CEQA Guidelines. A definition of cumulative impacts, under NEPA, can be found in 40 CFR, Section 1508.7 of the CEQ Regulations.

2.5.2 Human Environment

2.5.2.1 Land Use

Future Land Use

Projects under consideration by the City of Oakland in the vicinity of the Project are listed in Table 2.5-1, *Proposed Projects*. All projects are located within City Council District 5.

Table 2.5-1: Proposed Projects

*Project Name	Location (Address and/or APN)	Existing General Plan Land Use	Description	Status
Fruitvale Point	880 Fruitvale Avenue	Residential	47 residential units; 49 live/work units; 4,000 SF commercial	Application filed

Table 2.5-1, Proposed Projects, continued

*Project Name	Location (Address and/or APN)	Existing General Plan Land Use	Description	Status
1417-1431 Jefferson Street	1417-1431 Jefferson St APN: 003-0071-018-00 APN: 003-0071-017-00	Residential	36 residential units; ground floor commercial	Approval 5/5/08
Wattling Street	3927 Wattling Street APN: 033-2170-003-00	Residential	18 condominium units; 61 townhome units	Application filed
St. Joseph's	2647 International Blvd APN: 025-0701-004-01	Residential	Rehabilitation of the historic building; 80 senior housing units; 15,000 SF office	Application filed
2985 Ford Street	2985 Ford Street APN: 025-0673-007-00	Residential	56 condominium units; 15 work/live units	Application filed
Altenheim Senior Housing	1720 Macarthur Blvd APN: 023-0494-001-07	Residential	Phase II – 83 apartment units (new construction)	LPAB approval 7/12/04
Gateway Community Development Project (The Gateway)	East 12th Street between 25th Avenue and Derby Street APN: multiple	Mixed use	810 residential units; 26,000 SF commercial	Application filed

Source: City of Oakland – Active Major Development Projects List, October – November 2008

*All projects are located within Council District 5

Cumulative impacts to land use resources as a result of implementation of the Proposed Project are not anticipated. Therefore, no further analysis is required.

2.5.2.2 Community Impacts

The Resource Study Area (RSA) for cumulative impacts to the community is defined as a combination of two existing boundaries:

1) the San Antonio/Fruitvale/Lower Hills Planning Area boundary, as defined in the *City of Oakland General Plan, Land Use and Transportation Element* (March 1998) (for geographical boundaries, see Chapter 4, Implementation Program, Figure 6); and,

2) the East End, Park Street, and East Central Planning Sector boundaries, as defined in the *City of Alameda General Plan, Land Use Element* (1991) (for

geographical boundaries, see Chapter 2.2, Land Use Classifications, Figure 2-1). This RSA includes the Jingletown neighborhood, a community that meets the criteria for potential environmental justice impacts.

The current health and historical context relative to the community within the defined RSA could be described as urbanized, comprised of various mixed land uses, with strong community character and cohesion, particularly within the Proposed Project area. According to the Community Impact Assessment prepared for the Proposed Project, the land use designation of the Fruitvale area (one of three communities within the San Antonio/Fruitvale/Lower Hills Planning Area in Oakland) was re-classified in recent years from "institutional," "commercial," and "manufacturing" to "Neighborhood Center Mixed Use." Although three-quarters of the San Antonio/Fruitvale/Lower Hills Planning Area is residential, this is one of the most diverse parts of Oakland in its land use mix. Some 51 percent of the area consists of single-family homes and 25 percent consists of attached and multi-family housing. Most of the higher density housing is located in San Antonio and Fruitvale, often in a land use pattern in which single-family homes and apartments are mixed on the same blocks. Commercial uses comprise 6 percent of the Planning Area. The area's commercial uses are primarily located in "strips" along arterials such as MacArthur Boulevard, International Boulevard, Fruitvale Avenue, and East 12th Street. Industrial uses comprise 5 percent of the area and are mostly located near the waterfront and along East 12th Street.[1]

Cumulative impacts were identified by comparing the potential impacts of the Proposed Project and other past, current, or proposed actions in this area to establish whether, in the aggregate, they could result in significant environmental impacts. Other future actions anticipated at this time are generally related to continued infill urban growth within the City, including supporting infrastructure development as well as improvements to the I-880 corridor. There are several major proposed developments that have the potential to add to cumulative socioeconomic impacts. These projects include 6 residential development projects that would contribute 1,750 housing units, 111,092 square feet of commercial space, 25,600 square feet of clinic space, and 7 transportation projects. The transportation projects were identified as high priority projects within the North I-880 Safety and Operations Study Final Report, and include the following:

- Northbound Hegenberger Road Merge Reconstruction: restructure the westbound-to-northbound merge at the northbound Hegenberger, to provide increased spacing between successive entrance ramps.
- Northbound Coliseum/66th Avenue On-ramp Improvements: split the northbound Coliseum/66th Avenue on-ramp into two separate on-ramps, with separate access for the Coliseum entrance ramp. Widen the mainline to provide a merge taper for the ramp from the south Coliseum parking lot.
- 23rd Avenue Ramp Improvements: remove brick wall next to the northbound freeway to allow for construction of an acceleration lane and standard merge taper for entering traffic at the westbound-to-northbound diagonal on-ramp.

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- Southbound 16th Avenue and Embarcadero Ramp Improvements: relocate and re-sequence the southbound Embarcadero ramps, moving the on-ramp after the off-ramp.
- Relocate Southbound Fruitvale Off-ramp: relocate the Fruitvale Avenue off-ramp 150 to 200 feet to the south to increase the weaving distance. With this design, the ramp would extend to Del Monte Street, requiring significant changes to local access and circulation, including the construction of a cul-de-sac at Derby Avenue.
- Southbound High Street to 66th Avenue Auxiliary Lane: construct a full auxiliary lane from the High Street on-ramp to the 66th Avenue off-ramp. This Project would require a barrier between the mainline and Oakport Street and may require a slight realignment/widening of Oakport Street.
- Southbound 66th and Hegenberger Auxiliary Lane: construct a full auxiliary lane between the southbound 66th Avenue on-ramp and the Hegenberger off-ramp; move the exit sign upstream.

As part of the improvements for these transportation projects, a number of residential and nonresidential properties may be displaced. Relocation of these residences and businesses due to the implementation of these transportation projects may create some competition for housing and business relocation resources within the City. However, the proposed residential developments would increase the community's existing housing stock. The increase in housing would more than accommodate the potentially displaced residents from the proposed transportation projects. Since no residential displacements (and absence of non-residential displacements) would occur as a result of the Proposed Project, adverse cumulative impacts related to relocation resources are not anticipated. However, the major residential and commercial development projects may put a strain on existing community services and facilities within the City. There are no major developments proposed directly within the study area.

Although the Proposed Project would not contribute to adverse cumulative impacts, each development project within the City would need to be individually evaluated to ensure that the existing community services, facilities, and social infrastructure within the area would be sufficient to accommodate the proposed developments and projected population increases. Based on the above considerations, this Project would not have substantial cumulative impacts.

2.5.2.3 Visual/Aesthetics

The Project area is highly developed. The majority of proposed projects within the surrounding area consists of urban in-fill projects. The Project is one of several operational and safety improvement projects proposed along the I-880 corridor. Due to the existing topography and meandering nature of I-880, cumulative projects pertaining to infrastructure are not directly visible from the Project site. Therefore, as a viewer travels along I-880, the cumulative projects would be encountered on a singular basis. Thus, the cumulative projects would not be experienced in one encounter, but rather as a series of experiences along the I-880 corridor. Note that the cumulative projects are not modifications to the I-880 mainline, but rather indirectly associated with I-880 via an interchange or adjacent intersection.

The cumulative projects are predominately located in developed areas, do not substantially change the capacity of the transportation system, and are not anticipated to result in adverse environmental impacts in the Project area. Therefore, the extent of the impacts arising from the cumulative projects is considered to be minor. Landscape palettes will be selected to be consistent with the nature of the Project area. It is anticipated that cumulative projects, both present and future, would include landscape and tree replacements for the removal of existing landscaping and tree conditions. With the combination of cumulative projects including landscaping and tree replacements and implementation of recommended Proposed Project-specific minimization measures (VIS-2 and VIS-3, see page 174), cumulative adverse visual impacts relating to tree removal would be minimized. Also, the Project would not cumulatively contribute to light and glare impacts in the area.

2.5.3 Physical Environment

2.5.3.1 Air Quality

Cumulative projects include local development as well as general growth within the Project area. However, as with most development, the greatest source of emissions is from vehicular traffic that can travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for a project's air quality analysis must be regional by nature. The RSA for cumulative impacts to air quality is defined as the same boundary as the San Francisco Bay Area Air Basin; refer to Exhibit 2.5-2, *Resource Study Area – Air Quality*. This Basin includes San Mateo, Santa Clara, Alameda, Contra Costa, Napa, and Marin counties and forms a climatological subregion. This climatological subregion stretches from Richmond to San Leandro, bounded to the west by the San Francisco Bay and to the east by the Oakland-Berkeley Hills. The Oakland-Berkeley Hills have a ridgeline height of approximately 1,500 feet, a significant barrier to air flow. The most densely populated area of the subregion lies in a strip of land between the bay and the lower hills.

It should be noted that the Proposed Project is a transportation and safety improvement project, and not a direct trip generator. With respect to emissions that may contribute to exceeding State and Federal standards, a CO and particulate matter screening analysis was performed. The results of this analysis illustrate that localized levels would not violate published air quality standards, and therefore do not present a significant cumulative impact. In addition, due to the Project's relatively small scale, the contribution to the Basin air emissions is not "cumulatively considerable."

2.5.4 Biological Environment

The study area for the Proposed Project consists of developed, ruderal, and landscaped areas. The region is heavily urbanized with little, or no, natural habitat and a high level of disturbance. No natural habitats remain in the study area and all trees were planted as part of landscaping. Regionally, the Project area is surrounded by the highly urbanized areas of the cities of Oakland and Alameda, with little, or no, natural habitat.

As previously identified, the Project would have no impact to natural communities, special status plant or wildlife species, including fully protected species, threatened and endangered species, and invasive species. The Project would not cumulatively contribute to impacts on these resources because no impacts occur at the Project level. Therefore, natural communities, special status plant and wildlife species, threatened and endangered species, and invasive species are not discussed further.

The Proposed Project could impact 134 trees as a result of Project implementation through the replacement of existing trees with pavement. However, to reduce the total number of trees displaced, the Proposed Project includes landscaping and revegetation to minimize potential adverse impacts; refer to Exhibits 2.2-22 and 2.2-23 for a comparison of existing and proposed preliminary landscaping conditions. Special status bird species are not anticipated to occur within the Proposed Project area; the landscaped trees and shrubs that are present within the area could provide nesting areas for non-special status migratory birds that are protected under the MBTA.

Implementation of the following avoidance measures, related to biological (BIO) impacts would reduce or eliminate the adverse effects of the Proposed Project:

BIO-1 To avoid potential impacts and to ensure that the Proposed Project does not result in take of migratory birds protected under the MBTA, their nests or eggs, the construction contractor will implement the following avoidance measure BIO-2 (provided below) prior to and during construction in the study area.

BIO-2 To avoid potential impacts, if tree or shrub removal activities are scheduled to occur during the migratory bird breeding season (typically April 1 through July 31), then a qualified biologist will conduct a pre-construction survey for migratory bird nests in all areas that present suitable nesting habitat and will be impacted by construction. Active nests will be marked at a safe distance with visible flagging and the construction crew supervisor will be made aware of these locations. Construction may commence in all areas without active migratory bird nests. All migratory bird nests will remain undisturbed while they are active. After a nest ceases to be active (fledges or fails), and the qualified biologist has made this determination, construction may proceed in the area. If construction is initiated in one breeding season and persists into subsequent breeding seasons, additional surveys are not necessary unless construction activities involve additional tree or shrub removal.

Souce: Base Map, ESRI

Legend

- APE Boundary
- Biology
- Community
- Landuse (General Plan)

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INTERSTATE 880 OPERATIONAL AND SAFETY IMPROVEMENTS
AT 29TH AVENUE AND 23RD AVENUE OVERCROSSING IS/EA

Resources Study Areas

Exhibit 2.5-1

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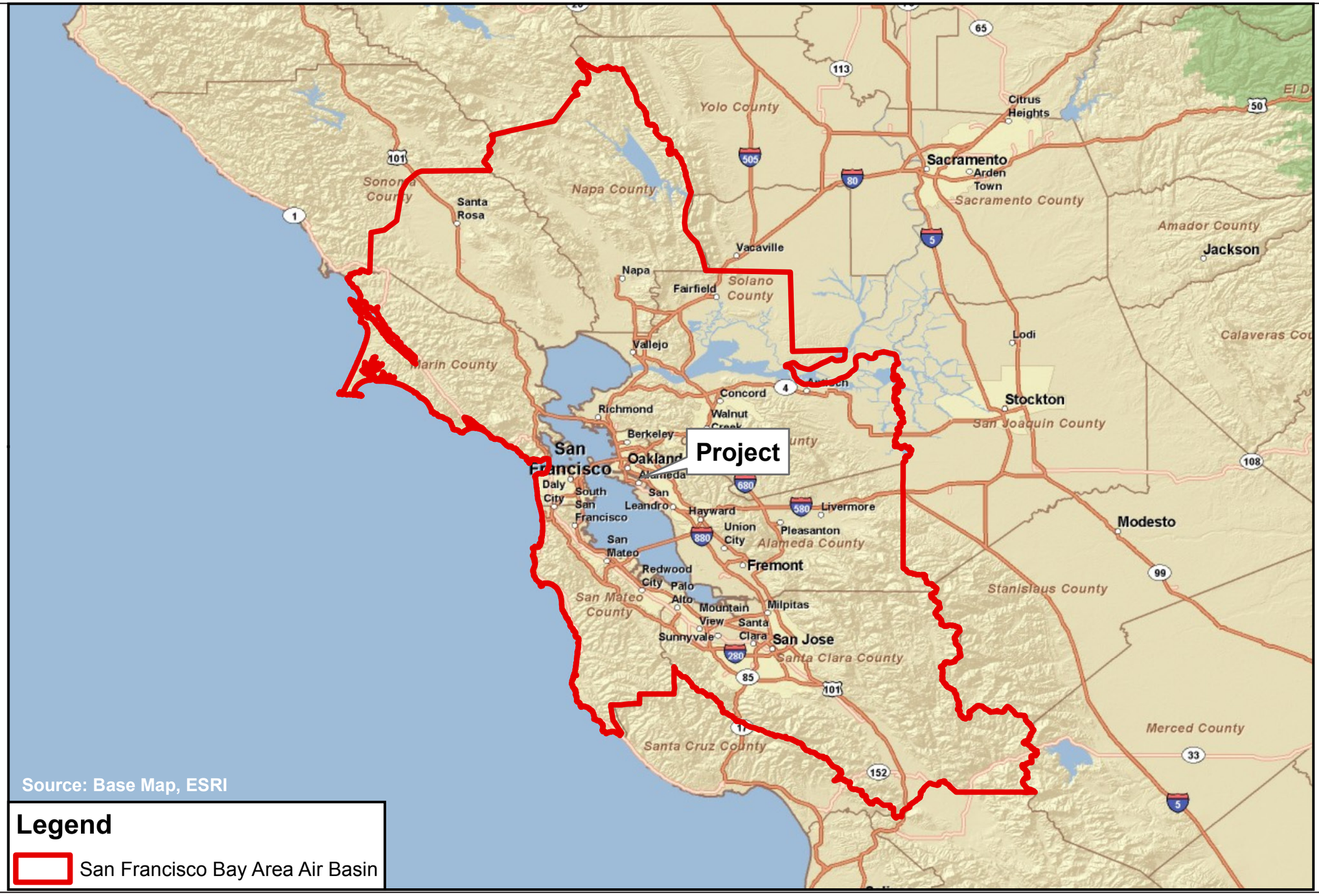

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INTERSTATE 880 OPERATIONAL AND SAFETY IMPROVEMENTS
AT 29TH AVENUE AND 23RD AVENUE OVERCROSSING IS/EA

Resource Study Area - Air Quality

Exhibit 2.5-2

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